



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,646	02/19/2004	Hisashi Ohtsuki	1761.1053	2196
21171	7590	04/08/2005	EXAMINER	
<b>STAAS &amp; HALSEY LLP</b> SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				SCHWARTZ, CHRISTOPHER P
ART UNIT		PAPER NUMBER		
		3683		

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/780,646	OHTSUKI ET AL.
	Examiner Christopher P. Schwartz	Art Unit 3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-1449)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 6) Other: \_\_\_\_\_

*Christopher P. Schwartz*  
CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER

## DETAILED ACTION

### ***Information Disclosure Statement***

1. Applicant's information disclosure statement has been received and considered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 5 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In the specification page 12 it is unclear what is meant by the sentence "It is to be noted that the single pitch deviation referred to above is represented by the difference in distance between the magnetic poles detected at the position spaced a predetermined distance from the multi-pole magnet 40, which is expressed by the ratio relative to a target pitch". It is unclear what is meant by "detected at the position" (this almost appears to define a method limitation) and what "ratio" and the "target pitch" are being used/referred to. The term "single pitch deviation" as defined by the specification is not clearly understood.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3-5 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3 the magnetic encoder has been doubly claimed.

Claim 5, last four lines beginning with "single pitch deviation of...target pitch" is not understood. See the explanation given above.

***Claim Rejections - 35 USC § 103***

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. in view of the US publication '638 to Okada et al..

Regarding claim 1 Takahashi et al. shows a brake by wire system capable of use with an anti-skid control system (see col. 2) comprising all of the features claimed, as easily seen in the several embodiments. Note the ECU at 21.

Lacking are the specifics of the wheel sensor assembly.

Okada et al. Shows one well known wheel sensor device used in the art with which applicant's are well familiar. Please note the magnetic wheel assembly at 4 (see figure 8) and the brake force regulating means in 136,139 in figure 34.

One having ordinary skill in the art at the time of the invention would have found it obvious to have used the wheel sensor system of Okada et al. '638 with the electric brake system of Takahashi et al. simply to provide one well known and necessary component, i.e. the wheel sensor, in ABS/TSR system using an electric brake.

The limitations of claims 2-5 are fairly suggested or are rendered obvious by the combined references above. Please see figures 7a and 7b of '638 and the discussion on page 15 regarding the pole pitch.

Specifically with regard to claim 5, as best understood, the ordinary skilled worker would have found it obvious from the teachings of '638 to adjust the spacing of the magnets accordingly, for increased precision, dependent upon the type of magnet (i.e. material used) and the number of poles used.

### ***Conclusion***

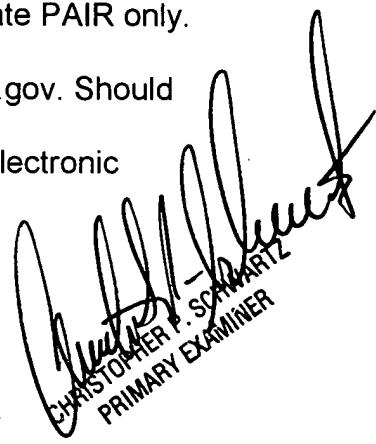
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The wheel sensor assemblies cited should be reviewed to show the state of the art available to the ordinary skilled worker.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 703-308-0576. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Schwartz can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cps  
4/4/05



CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER

A handwritten signature of Christopher P. Schwartz is written diagonally across the page. Below the signature, the name "CHRISTOPHER P. SCHWARTZ" is printed in capital letters, followed by "PRIMARY EXAMINER" on a new line.